Commonwealth of Kentucky
Division for Air Quality

RESPONSE TO COMMENTS

ON THE PSD CONSTRUCTION PERMIT VF-01-002
WESTVACO KENTUCKY, L.P.
WICKLIFFE, KENTUCKY
MARCH 12, 2002
REVIEWER: JOHN LEWIS
PLANT I.D. # 21-007-00002
APPLICATION LOG # 53244

SOURCE DESCRIPTION:

Westvaco Kentucky, L.P. operates an integrated pulp and paper mill at Wickliffe, Kentucky. They submitted a permit application on September 28, 2000, proposing modifications to most emission units and processes throughout the mill. The Wickliffe mill is currently classified as a major stationary source as defined by 401 KAR 51:017 and the federal Prevention of Significant Deterioration (PSD) regulations (40 CFR 52.21). The plant is a "kraft pulp mill", which is one of the 28 listed 100-ton per year major source categories in the PSD regulations. The source is located in Ballard County which is classified as "better than standard" or "unclassified" for all pollutants pursuant to 401 KAR 51:010. There will be no increase in the yearly potential emissions since the pulp production limit established in permit F-99-009 will not be changed (please refer to Comment #4 in Attachment A).

Westvaco has submitted a Title V permit application in accordance with 401 KAR 52:020 and 40 CFR Part 70, but it is scheduled for review and processing at a later date. The attached permit is a PSD construction permit authorizing construction and operation of the proposed modifications, and is not a Title V operating permit.

PUBLIC AND U.S. EPA REVIEW:

On August 8, 2001, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *The Advance Yoeman* in Wickliffe, Kentucky. The public comment period expired 30 days from the date of publication. During this time no comments were received from the general public.

Comments were received from U.S. EPA Region 4 on August 3 and September 18, 2001. Westvaco submitted a response to comments on August 13 and September 10, 2001, and January 4, 2002.

Attachment A to this document lists the comments received and the division's response to each comment. Minor changes were made to the permit as a result of the comments received, however, in no case were any emissions standards, or any monitoring, recordkeeping or reporting requirements relaxed. Please see Attachment A for an explanation of the changes made to the permit.

ATTACHMENT A

Response to Comments

The following comments on the PSD application were submitted by R. Douglas Neeley, Chief of the Air and Radiation Technology Branch, U.S. EPA Region 4 on August 3, 2001. Responses from Westvaco were submitted by Charles R. Dailey on August 13 and September 10, 2001; and January 4, 2002.

1. On page 1-2, the application states that a netting analysis of all mill-wide emissions increases and decreases contemporaneous with the project (i.e., within the past five years from the date of projected construction) has been prepared. The State of Kentucky regulation 401 KAR 51.017, Section 1, (30)(b) states that for construction that commences prior to January 6, 2002, occurs between the date ten (10) years before construction on the particular change commences, and the date that the increase from the particular change occurs. Therefore, if the facility plans to begin construction prior to January 6, 2002, the netting analysis should be performed to include the time period of five years prior to the starting date of the current analysis. This analysis only needs to be performed for those pollutants (sulfur dioxide (SO_2) and particulate matter (PM)) for which the facility is using the netting analysis to avoid the need for PSD review including a Best Available Control Technology (BACT) analysis.

Westvaco's response: Westvaco has reviewed past permitting events and capital expenditures for projects that could potentially affect PM_{10} and SO_2 emissions for the period from April 1991 until April 2001. Table 3-3 (revised from the May 2001 version of the application) shows the significant projects that occurred during that period, and the resulting increase or decrease in PM_{10} and SO_2 emissions. The extension of the netting analysis to ten years previous instead of five, shows additional projects not previously included in the netting analysis in the permit application. The new netting analysis shows increases in PM_{10} and SO_2 emissions not identified over the five-year period. Therefore, emission increases from the current project will need to be reduced.

Westvaco agrees to comply with the following particulate emission limitations for the recovery furnace to limit the net change in PM_{10} emissions below 15 tons per year. The new emission limitations will be:

- 1.35 lb/ADT – normal operations
- 1.25 lb/ADT – alternate operating scenario No. 1

These changes will affect the overall netting analysis for the project. Since there is a surplus of SO_2 emission credits over the contemporaneous period, modification of the SO_2 limits in this project are not necessary. The previous analysis showed a net increase in PM_{10} emission and net decrease of SO_2 emission of 10.9 and 1,182.2 tons respectively. The revised project-netting summary is presented below:

	PM_{10} Emission Changes tpy	**SO_2 Emission Changes tpy**
Contemporaneous Period Changes (Table 3-3)	-50.38	-1275.36
Emission Changes for Optimization Project	63.3	101.7
Net Emission Change	**12.92**	**-1173.66**

TABLE 3-3
Emission Netting Analysis Summary
Westvaco Corporation, Wickliffe, Kentucky

			PM_{10}	SO_2	
	Description	**Date**	**TPY**	**TPY**	**Comments**
	Pulp Dryers - New Dust Boxes	October 1992	0.42	0.03	
	Retiring of Incinerator	September 1995	8.76	-259.70	Effective 8/8/96 as per DEP7007R Form submitted with the Chip Meter Blade PSD Application.
	New R-8 ClO_2 Generator	March 1997	N/A	N/A	
	4 Stage Bleaching & Washing - Collection of Filtrate Tanks	October 1997	N/A	8.58	
	Chip Blade Removal Project	March 1999	25.00	69.50	Chip metering application. Westvaco conducted a PSD analysis for PM and CO. PM_{10} emission increases are not required to be included as part of the analysis since the Mill submitted a PSD application addressing these pollutants in 1998.
	Pulp Dryer Production Increase	Not Operational	14.79	0.03	As per pulp drier production increase permit application submitted on July 1997. Construction has not commenced as of this filing. Increases are not creditable pursuant to 401 KAR 51:017 Section 1(30)(g) since the unit was not operational during the contemporaneous period.

	Recovery Furnace Scrubber [c]	November 1999	-59.56	-1093.80	Installed in November 1999. Subsequent shakedown and testing required to establish level of control. See Table 3-2 for calculation of creditable decreases. Assumed worst case production increase scenario (i.e., minimum amount of credits available following proposed changes to RF).
Net Emission Changes			**-50.38**	**-1275.36**	Emission decreases available for netting.

Division's response: The division concurs with the comment and has reviewed the response by Westvaco. Westvaco's response addresses this comment by extending the contemporaneous period to ten years, and by proposing reduced allowable emission rates for particulate emissions from the recovery furnace. The division has revised the permit with these new emission limits.

2. On page 3-5, the application states the following:

   "Pursuant to guidance in the EPA NSR Workshop Manual, the emissions increase for pollutants associated with PSD projects are not required to be included in the netting analysis since they have been addressed in a PSD ambient air quality impact analysis. The Mill is only required to include emissions increases associated with projects that have occurred after this demonstration (i.e. since December 1998)."

   We understand this language to represent Westvaco's understanding of what is meant by the "has not relied on" provision of Kentucky's PSD regulations. Because of the complicated nature of PSD netting evaluations, however, we would prefer to see a listing of all emissions increases and decreases (for the affected pollutants) during the 10-year contemporaneous period with an explanation of how each one has or has not been relied on in the issuance of a PSD permit.

Division's response: Westvaco has provided this information (see Westvaco's response to Comment #1 above).

3. The application states on page 3-1 that "In cases where the baseline period is not representative of actual emissions, sources may substitute potential to emit for its baseline emission rate." Sources do not have the authority to determine that it is acceptable to use potential emissions in place of actual emissions for calculating a facility's baseline emission rate. The State of Kentucky is the sole authority that may determine if the facility may substitute potential emissions for actual emissions in determining emissions increases at the facility for PSD applicability purposes.

Division's response: The division accepts Westvaco's use of potential emissions in place of actual emissions because the baseline period is not representative of actual emissions.

4. The application goes to great lengths to explain what units at the facility are undergoing a physical modification versus what emission units are not expected to undergo a physical modification but may have associated emission increases from the project ("affected units"). One aspect of the PSD analysis that does not appear to be covered is those emission units that may have a change in the method of operation as a result of the production increase. Kentucky Regulation 401 KAR 51:017, Section 1, (23)(b)(5) states that a physical change or change in the method of operation does not include an increase in the hours of operation or in the production rate, unless the change would be prohibited after January 6, 1975, pursuant to 40 CFR 52.21. The Region interprets this to mean that a change in a federally-enforceable emission limit or production throughput rate taken in a permit after January 6, 1975 would constitute a change in the method of operation at a PSD source. The Region would like to explore whether it is necessary for "affected units" at the facility to have pre-existing permitted allowable emission or production rates increase as a result of the optimization project.

Westvaco's response: Kentucky Regulation 401 KAR 51.017, Section 1, (23)(b)(5) and 40 C.F.R. 52.21 allow a source to increase its hours of operation or production rate unless the operation or production rate increase is prohibited by a post-January 6, 1975 federally enforceable emission or production rate limit. A change in such a federally enforceable limit constitutes an operational change that, in turn, can trigger PSD review.

The existing state air quality permit for the Wickliffe Mill includes one post-January 1975 operating limit that will be affected by the changes proposed for the Mill. Specifically, the state permit (Section B, ¶1) provides that "[p]ulp production shall not exceed 367,100 air-dried tons/year," and the Mill is seeking to have that limit on pulp production lifted in conjunction with changes proposed for its digester. Recognizing that the proposed actions at its digester -- including the proposed increase in the digester's production rate -- constitute an operational change for the digester, the Mill has applied for a PSD permit for the proposed digester activities.

Other emission units at the Mill, however, are not subject to any federally enforceable emission or production rate limit. Therefore, an increase in the hours of operation or production rate of one of the other Mill emission units would not be deemed a modification under state or federal law. PSD review for any such other emission unit would thus not be triggered unless that unit was itself undergoing a physical or operational change that is not otherwise exempt from the PSD permitting process. As discussed in detail in the application, the Mill is now contemplating a range of activities at other Mill emission units. Many of those activities do not constitute physical or operational changes of the Mill's other emission units and thus do not trigger PSD review. If the Mill undertakes activities that do constitute physical or operational changes of the other emission units, then -- as described in the application -- then such changes would undergo PSD review.

Division's response: The purpose of the pulp production limit in the PSD permit F-99-009 was to avoid PSD significance for VOC and TRS. Therefore, any increase in this limit could be considered a change in the method of operation for units that emit VOC or TRS. Westvaco has not submitted a BACT analysis for all required units. Therefore, the permit will be issued without a change in the pulp production limit on permit F-99-009.

5. The BACT limit for volatile organic compounds (VOC) is not specified in the application [for the recovery furnace]. The facility must choose a specified emission rate for VOC from the Recovery Furnace prior to permit issuance. The facility should also submit results of source test information to support the requested allowable emission rate.

Westvaco's response: Based on the data available at this time, Westvaco cannot predict the impact that the proposed changes will have on VOC emissions from the furnace. Since the magnitude of VOC emissions from combustion processes are directly related to CO emissions, Westvaco proposes that the CO emission limit serve as a BACT limit for both CO and VOC. The mill will test a variety of combustion techniques to meet the CO (and NO_x) BACT limits as part of the project. Control of these pollutants will directly affect VOC emission rates. The mill is unaware of any other numeric VOC BACT limits for direct contact recovery furnaces and a numeric limit is unnecessary as emissions will be mitigated by meeting the CO emission limit

Division's response: The division agrees with Westvaco that BACT for VOC emissions is good combustion practices to be assessed by compliance with the CO emission limit.

6. The BACT limit for Total Reduced Sulfur (TRS) emissions [from the recovery furnace] is proposed to be the same limit as specified in 40 CFR 60, Subpart BB for Kraft Pulp Mill recovery furnaces (5 parts per million). It appears from several of the BACT limits accepted in other PSD permits for kraft mills that the facility can achieve a lower TRS emission rate than it has proposed. The facility should submit historical source test information to validate why it cannot meet a lower TRS emission limit than the NSPS limit.

Westvaco's response: Westvaco has reviewed the EPA RACT/BACT/LAER Clearinghouse (RBLC) for TRS emissions from direct contact recovery furnaces and there is no precedence for limits lower than the 5 ppm NSPS limit. The mill has also reviewed emissions data from the past three years that indicates the unit typically operates at an average of 5.2-7.8 ppm. Westvaco believes that the furnace will be able to consistently meet the 5 ppm limit by implementing the proposed modifications and combustion controls.

However, a TRS limit lower than 5 ppm could only be consistently achieved by replacing the furnace with a new non-direct contact furnace or by implementing add-on control technology. No add-on control technologies beyond what are currently in place are technically feasible. Please reference the BACT analysis presented in the application for further discussion. Replacing the unit with a non-direct contact furnace is not a cost effective option for the mill.

Division's response: The division accepts Westvaco's determination that the NSPS limit on TRS emissions is BACT for the direct contact recovery furnace.

7. The VOC BACT determination [for the paper machine] does not require an emission limit or a work practice standard to reduce VOC emissions. Other facilities have, at a minimum, included the work practice standard of using clean water in paper production on the paper machine as well as a VOC emission limit per ton of paper produced. The Region believes that, at a minimum, the facility should be required to use clean water in paper production and include a VOC emission limit per ton of paper produced.

Westvaco's response: A numeric VOC limit equivalent to BACT is not technically feasible to develop, nor practical to demonstrate compliance with, for the following reasons:

- Variation of the paper grades (i.e., pulp stock and additives) produced in the machine is such that a single VOC emissions profile is undeterminable.
- Exhaust is vented through a series of overhead hoods and not directly from the machine.
- Emission testing is not practical due to the complex exhaust configuration.
- It would be cost prohibitive to capture and control exhausts so that the streams could be tested to estimate emissions and monitored to demonstrate compliance.
- Mass balance is not a viable method to calculate and track VOC emissions because the contribution of VOC from process water, pulp and additives is highly variable.

Westvaco proposes VOC BACT for the paper machine to be the use of clean process water. Clean process water would be considered to be any water except foul pulping condensates. This approach is consistent with BACT applied at other similar pulp and paper mills within EPA Region IV as demonstrated in the RBLC.

Division's response: The division accepts Westvaco's determination that BACT for the paper machine is the use of clean process water. This operating limitation has been added to the permit.

8. The permit should include a numerical NO_x emission limit [for the bleach plant coater] on a pounds per million British thermal units (Btu) basis in addition to the requirement to combust natural gas for the dryer associated with the bleach plant coater operation that is to be installed.

Westvaco's response: Westvaco understands this comment applies only to the dryers proposed to be modified as part of the Pulp and Paper Mill Optimization project. Westvaco is also aware that numeric BACT emission limits have been established for similar processes at other pulp and paper mills. While Westvaco is able to commit to low NO_x burners as BACT for the dryers, and exact emission limit cannot be determined until the equipment specifications are finalized. At that time, Westvaco will select a burner manufacturer and will be prepared to propose a numeric limit as BACT for the dryers that takes into account the process design parameters and manufacturer's recommendations. Westvaco proposes that DAQ add a similar condition as that provided for the BLOX tower requiring the mill to re-submit a BACT analysis, and numeric BACT limit, within a specified timeframe prior to commencing construction.

Division's response: The division concurs with the comment and has removed the construction authorization from the permit. Westvaco can submit a complete BACT determination and request a permit revision.

9. On page 5-9, the facility commits to install one of the "technically feasible" options in the BACT analysis if it physically modifies the BLO system in the future. Since the facility is applying for a permit to modify the BLO system in the event that it decides to, the facility must choose which control technology and emission rate it will apply for BACT and justify its choice in the current BACT analysis prior to permit issuance. In the alternative, the facility may decide that the prospect of triggering BACT at these units is a remote enough possibility to justify not being permitted as part of the optimization project. The downside to this choice would be the possibility that the facility would have to apply for a PSD permit modification in the event that it decided to undertake a BLO modification in the future.

Division's response: The division concurs with this comment and has removed this alternate operating scenario from the permit.

10. On page 4-4, the application mentions a Kentucky rule that requires the temperature and residence time requirements for kraft pulp mill TRS emissions is a state-only requirement. The Kentucky rule to which the applicant refers is a federally-enforceable portion of the State of Kentucky State Implementation Plan (SIP). The Region is simply addressing this so that there is no confusion in the Mill's upcoming title V permitting actions as to whether the emission limit associated with this standard is placed in the state-only portion of the title V permit.

Division's response: The division concurs with this comment.

11. The Region encourages the State to avoid any reference or reliance upon the "like-kind replacement" discussion in its analysis of this or any applicant's PSD analysis. There are no regulatory allowances for beneficial treatment to be applied to "like-kind replacements" in the State's PSD regulations. Further, this discussion clouds the issue of netting emissions for replacement components at a facility undergoing PSD review.

Division's response: The division concurs with this comment.

12. On page 3-10, the application discusses the treatment of insignificant emissions units including the wastewater treatment plant and lime slaker at the facility. "Insignificant emission unit" is a term that refers to specific treatment of emission units for title V application purposes. PSD rules require that all units be addressed with respect to evaluating PSD applicability at the facility. Furthermore, for any pollutants subject to PSD review all units or activities with any increase in emissions of those pollutants need to be included in the PSD review.

Division's response: The division concurs with this comment and no emission units have been included as an insignificant activity.

13. While the facility is not required to model TRS and VOC emissions, it is required to address in some fashion what it believes will be the ambient impact of an increase in those pollutants as a result of the project.

Westvaco's response: Westvaco has evaluated the ambient impact of TRS and VOCs and concluded that there will be no significant adverse affects due to this project. Emissions of both pollutants will increase relative to the production increase of each scenario. The TRS compounds are closely tied to odor. There have been no public odor complaints about the mill in more than a year. In addition, there have been odor reduction projects that were not accounted for in the netting analysis for this permit. Those projects included reductions in TRS compounds that would have offset TRS emission increases from this project. The increase in TRS due to this project is not expected to change the odor characteristics of the mill. The mill is in an ozone attainment area. The increase in VOCs from this project should not affect the attainment status of the area surrounding the mill.

Division's response: The division concurs with the comment and accepts Westvaco's determination.

14. Kentucky PSD rules at 401 KAR 51:017, Section 1, (37) state that any emissions increase of a Clean Air Act regulated pollutant not listed in Section 22 is "significant." Therefore, under Kentucky's rules, all the hazardous air pollutants (HAP) listed in the Clean Air Act (and not covered by Section 22) are potentially subject to PSD review if any emissions increase of these pollutants will occur as a result of a proposed project. The State should evaluate whether this provision affects the optimization project and, if so, should address in the preliminary determination how the provision is satisfied. For example, if the project will result in an increase in emissions of a volatile organic HAP, the BACT evaluation for VOC may be adequate for the HAP as well.

Westvaco's response: The Kentucky rules, in 401 KAR 51:017 Section 1, require the evaluation of all CAA pollutants not specifically listed in Section 22. Based on information compiled by the pulp and paper industry, the mill does emit compounds that are not specifically listed in Section 22. No site-specific data is available. The pollutants include several organic and some inorganic compounds. The characteristics of these pollutants are very similar to VOCs and TRS compounds. Westvaco proposes to use VOCs and TRS as surrogates to evaluate the control technology requirements of the additional compounds. The application included this evaluation for each required piece of equipment and believes this should satisfy this requirement.

Division's response: The division concurs with the comment and accepts Westvaco's proposal.

15. Westvaco explains on page 3-1 of the application a procedure for including in the PSD applicability assessment any emissions increases from debottlenecked units or units with increased utilization. The explanation includes the following language: "The emissions increase for affected units is calculated based on the incremental increase above the units current potential to emit, taking into account the process bottlenecks that were in place prior to the modification." We are completely clear on the meaning of this statement. The Region's opinion is that emissions increases from debottlenecked units or units with increased utilization should be based on the difference between past actual emissions from these units and future potential/allowable emissions from these units. The source owner has the option of accepting enforceable restrictions on future allowable emissions if desired.

Westvaco's response: For affected units the emission increases are calculated as if they were limited by one of the modified units. The Wickliffe mill is a single line mill with essentially one of everything in the significant path of production. This means that if the digester is modified and produces a certain amount of pulp, the pulp has a corresponding liquor generation, and that liquor must be processed. There are no external inputs that will affect the emissions of the plant. The pulp produced at the digester limits the potential throughput of all the modified and affected units in the application. Calculations were completed for the affected units based on historical throughput ratios and a current actual to future potential increase.

Division's response: See Westvaco's response.

The following additional comments on the PSD draft permit were submitted by Kay T. Prince, Chief of the Air Planning Branch, U.S. EPA Region 4 on September 18, 2001.

16. [Recovery furnace] A BACT emissions limit for volatile organic compounds (VOC) is not specified in the draft permit. KDAQ should either specify an emission rate or state that BACT for VOC emissions is good combustion practice to be assessed by compliance with the carbon monoxide (CO) emissions limit. Any VOC test results available from the facility should be reviewed to assess whether a specific VOC emissions limit is impractical.

Division's response: Please refer to Comment #5.

17. [Recovery furnace] The BACT limit for total reduced sulfur (TRS) emissions is proposed to be the same limit as specified in 40 C.F.R. part 60, subpart BB new source performance standard (NSPS) for Kraft Pulp Mill recovery furnaces (5 parts per million). Before reaching a final BACT determination for TRS emissions, we recommend that KDAQ review any test data available from the facility to verify that past actual emissions do not support a lower emissions limit for BACT purposes.

Division's response: Please refer to Comment #6.

18. Draft permit page 44, condition b.- There is a typographical error in the citing of the allowable PM limit from the recovery boiler found in 40 C.F.R. § 60.282. The correct cite should be 40 C.F.R. § 60.282(a)(1)(i) instead of 40 C.F.R. § 60.282(1)(i).

Division's response: The division concurs with the comment and the permit has been corrected.

19. Draft permit page 44, condition c.- There is a typographical error in the citing of the allowable TRS limit from the recovery boiler found in 40 C.F.R. § 60.283(2). The correct cite should be 40 C.F.R. § 60.283(a)(2) instead of 40 C.F.R. § 60.283(2).

Division's response: The division concurs with the comment and the permit has been corrected.

20. Draft permit page 44, condition d.- There is a typographical error in the citing of the allowable visible emission limit from the recovery boiler found in 40 C.F.R. § 282(a)(1)(ii). The correct cite should be 40 C.F.R. 60.282(a)(1)(ii) instead of 40 C.F.R. § 60.282(1)(i).

Division's response: The division concurs with the comment and the permit has been corrected.

21. Draft permit page 44, condition d.- This permit condition indicates that the facility will monitor the visible emission limit [of the recovery furnace] through proper operation and maintenance of the electrostatic precipitator (ESP) and scrubber in accordance with the manufacturer's specifications. 40 C.F.R. § 60.284(a)(1) requires the facility to install a continuous opacity monitoring system (COMS) to record opacity from the recovery furnace. 40 C.F.R. § 60.13(i) does allow for an alternative monitoring approach to be undertaken in the event that a COMS would not provide an accurate measurement due to liquid water or other interference caused by substances in the effluent gases. The proposed alternative will have to be approved in advance of permit issuance by KDAQ and the Region 4 office of the U.S. Environmental Protection Agency (EPA). If the facility desires to have this alternative approved in the PSD permit, it should submit information to KDAQ and EPA Region 4 in advance of PSD permit issuance. Otherwise, the PSD permit must be issued with the required monitoring found at 40 C.F.R. § 60.284(a)(1).

Westvaco's response: Westvaco believes that an opacity monitor is not an appropriate monitoring device for the lime kiln's saturated plume. Draft permit language that includes alternative monitoring for this requirement was submitted and discussed with the Division. EPA review of the KYDAQ draft permit package should be approached as an opportunity for Region 4 to review the proposed alternative monitoring. The state has provided sufficient documentation of the facility along with a proposed draft permit condition to warrant approval of the monitoring approach.

However, Westvaco does not wish to delay the permit over this issue should EPA protest. Westvaco suggests language consistent with the NSPS be incorporated in the permit. The mill will then submit a request for alternate monitoring under a separate application.

Division's response: The division has modified the permit to include the monitoring required in 40 CFR 60.284(a)(1). If Westvaco wishes to propose an alternate monitoring method they should submit an application to KDAQ and EPA Region 4.

22. Draft permit page 44, condition f.- The allowable SO_2 emission rate was calculated based on netting emission reduction credits to avoid BACT review for the recovery boiler. …, this allowable permit emission limit may have to be changed once the ten-year contemporaneous calculations are completed for SO_2 emissions at the facility.

Division's response: This emission limit does not need to be modified. Please refer to Comment #1 for details of the ten-year contemporaneous calculations.

23. On page 19 of the draft permit, permit condition 2.a should be amended to carry forward the hourly allowable VOC emission rate of 9.13 pounds per hour found in permit C-89-033, condition G-15.

Westvaco's response: The reason for any VOC limit in the coater permit was for the project to avoid PSD review. This resulted in the 39.9 tons per year limit. The hourly limit was drawn from the permit application forms and put in the permit without reasonable regulatory basis.

The issue was raised with Stan Cook (Paducah DAQ) and Pat Haight (Chemical Section Supervisor) in February 1999 and both agreed that there was no regulatory basis for the hourly requirement. It was later decided that the best way to remove the condition was as part of the Title V "clean-up." Since the Title V permit has not been issued, Westvaco believes that this permit that went through proper public review is an acceptable avenue to remove the hourly VOC limit.

Division's response: The division has removed this permit condition for the reason described in Westvaco's response to this comment.

24. The Coater conditions should be updated to include raw material usage limits found in permit C-89-033, condition G-16. Removal of these material throughput limitations would necessitate a significance analysis since removal of the conditions may constitute a change in the method of operation at the facility.

Westvaco's response: This question is closely related to the question in #2 above. The limits were drawn from the permit application forms and put in the permit without any regulatory reasoning. The values were used to demonstrate compliance with the annual VOC emission limit.

The coater was permitted to apply a coating material to a paper substrate and VOC emissions from the coating operation were not to exceed an annual limit. The composition of the coating is not significant as long as no new regulated pollutants are introduced into the process without the appropriate air permitting review.

Through the development of the Title V permit (not yet issued) and this permit, we have lobbied for the removal of these limits for the reasons stated above. Westvaco believes that this permit that went through proper public review is an acceptable avenue to remove these material limits.

Division's response: The division has removed this permit condition for the reason described in Westvaco's response. It has been replaced with a more appropriate method of demonstrating compliance with the 39.9 tons per year limit on VOC emissions.

25. [Bleach plant coater] Specific criteria pollutant emission limits should be included for permit condition 7 along with the capacity rating of the size press.

Westvaco's response: The unit will be in-line with the paper machine and coater. The throughput will be consistent with these units. The mill does not feel that the specific capacity rating of the size press is relevant to the permit.

Division's response: Please refer to Comment #8.

26. On page 50 of the draft permit, it is stated that Westvaco will install one of the "technically feasible" options in the BACT analysis if Westvaco physically modifies the black liquor oxidation (BLOX) system in the future. At a minimum, there must be assigned allowable emission rates for PSD-regulated pollutants established for the chosen stated control technology. Since Westvaco is applying for a permit to modify the BLOX system in the event that modification becomes the preferred approach, Westvaco must choose which control technology and emission rate it will apply for BACT and justify its choice in the current BACT analysis prior to permit issuance. In the alternative, Westvaco may decide that the prospect of triggering BACT at these units is a remote enough possibility to justify not being permitted as part of the optimization project. The downside to this choice would be the possibility that the facility would have to apply for a PSD permit modification in the event that it decided to undertake a BLOX modification in the future.

Division's response: Please refer to Comment #9.

27. [Bark boiler] On page 16 of the draft permit, in condition b. the compliance demonstration is listed as maintaining records that show that no more than 200 gallons of waste oil are burned per day. The fuel combustion limit is that the rate of firing waste oil would not exceed 200 gallons per hour. It appears from past permit C-89-148 that the compliance limit should be to track the waste oil firing rate to show it to be less than 200 gallons per hour. The compliance demonstration limit should be changed to reflect this permit limitation.

Westvaco's response: The confusion in the language for this condition results from an attempt to simplify the record keeping for this limit. Westvaco agrees with this point however, suggests that it read "a daily average of 200 gallons per hour".

Division's response: The division concurs with the comment and has changed the permit to reflect this permit limitation.

28. The facility was not previously permitted to combust waste sludge in its bark boiler. We view such a change in fuels as a change in the method of operation that should be analyzed to determine if there is a significant emission increase in PSD-regulated pollutants. The draft PSD permit indicates that this fuel addition to the bark boiler was authorized to be undertaken through a letter to the facility dated in 1998. Our opinion is that a significance analysis is required to show that there was no significant increase in emissions as a result of allowing this fuel introduction. The PSD permit should have been amended in 1998 to allow for waste sludge to be combusted.

Westvaco's response: A significance analysis was completed for the combustion of sludge and the project did not trigger PSD based on our review. The sludge is generally a wood waste stream of fiber lost to the sewer during processing at the plant. Wood waste is the primary fuel of the bark boiler. Westvaco requested in a letter to Dan Gray on May 27, 1998 to conduct a sludge trial burn in the bark boiler. The mill received approval to conduct the trial in a letter from Pat Haight on June 17, 1998. The trial was successful and Westvaco submitted to the Division on September 17, 1998 a request to modify the existing bark boiler permit to burn the materials in the trial. Pat Haight issued a "no permit required" letter on October 7, 1998 for the combustion of sludge.

Division's response: Westvaco's response is accurate.

29. On page 3-1 of the permit application, Westvaco states with reference to debottlenecked units (termed "affected units" in this application) that "The emissions increase for affected units is calculated based on the incremental increase above the units current potential to emit, taking into account the process bottlenecks that were in place prior to the modification." This approach does not appear to comport with our understanding of EPA's policy that the emissions increase for debottlenecked units is the difference between current actual (not current potential) and future potential emissions. (See the letter dated November 23, 1998, from EPA Region 3 to the Virginia Department of Environmental Quality regarding the Intermet Corporation Archer Creek Facility.)

Division's response: Please refer to Comment #15.

30. In Table 3-1 (page 3-4) of the permit application, Westvaco lists the pollutants reviewed for PSD applicability. These pollutants, however, are not the only pollutants covered under Kentucky's PSD rules. In particular, 401 KAR 51:017, Section 1, (37)(b) states that <u>any</u> net increase in emissions of a pollutant regulated under the Clean Air Act and not elsewhere listed with a significant emissions increase threshold is subject to PSD review. We will leave it up to KDAQ as to how this provision of Kentucky's rules should be applied to this project.

Division's response: Please refer to Comment #14.

31. On page 3-5 of the permit application, Westvaco states that the only emissions increases of PM_{10} and CO that need to be considered are those that occurred after the chip meter blade removal project applied for in December 1998. The rationale for this statement is that the emissions increases for the chip meter blade removal project were modeled for that project and are not required to be considered in a subsequent PSD netting analysis "since they have been addressed in a PSD ambient air quality impact analysis." We take this to be a reference to the "previously relied upon" provision of PSD rules. (This is, emissions increases and decreases relied upon in the issuance of a PSD permit need not be included in a subsequent PSD applicability assessment so long as they are still contemporaneous.) We have two concerns about this approach. First, given the discussion above about a ten-year contemporaneous period versus a five-year contemporaneous period, we are not sure if the proper contemporaneous period was used for the chip meter blade removal project permit application. Second, we are unsure if just the emissions increases associated with the chip meter blade removal project were modeled, or if all contemporaneous emissions increases and decreases were modeled as well.

Division's response: Westvaco has extended their netting analysis to 10 years (see Comment #1).

32. On page 3-10 of the permit application, the applicant mentions "insignificant" levels of VOC from the wastewater treatment plant, lime slaker and causticizers. PSD rules and policies do not include the concept of "insignificance." Technically, any emissions unit with any increase in emissions of a pollutant subject to PSD review should be included in the PSD analysis. The permitting agency can decide the level of detail needed in the analysis of units with a small quantity of emissions increases.

Westvaco's response: Emissions from the units identified are primarily characterized as VOCs. None of the units listed are modified, and therefore do not need to undergo a technology review. Modeling the VOCs emissions is not required. Therefore, a detailed analysis of exact emission changes from these sources is not necessary. These sources will be included in the evaluation of ambient impacts described above in question 13.

Division's response: Please refer to Comment #13.